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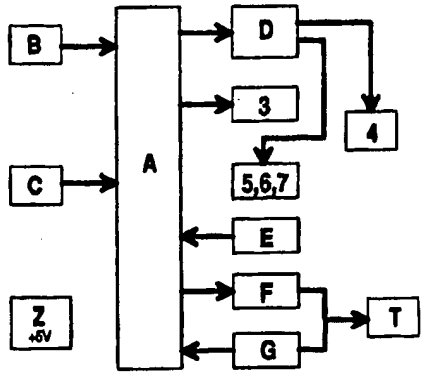
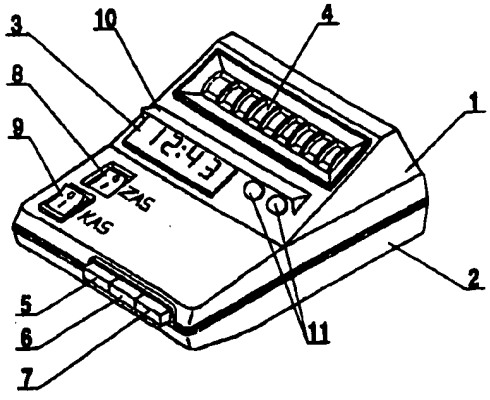
(54) Title: CONTROLLER, ESPECIALLY ONE FOR MARKING VALIDITY OF TICKETS AND CONTROLLER UNIT SYSTEM

(57) Abstract

A controller, especially one to mark the validity of tickets, characterized by the fact, that it has a housing base (2) adapted to the upper housing (1) with a slanted plane in which a rotary digital switch (4) i located, situated above the microcontroller printed-circuit board, the display (3), monitor lights (11), and switch (8) "ZAS" and switch (9) "KAS". A controller unit system, especially one to mark the validity of tickets, characterized by the fact, that it contains a microprocessor (A) connected with a crystal oscillator (B), a microswitch block (C), and a multiplexing generator (D) generating signals necessary for the correct operation of the display (3) and control push-buttons (5, 6, 7), as well as a rotary digital switch (4), a transcoder (E) changing the code, a transmitter (F) and a receiver (G) of the transmission line (T).





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Controller, Especially One for Marking Validity of Tickets and Controller Unit System

The subject of this invention is a controller, especially one to mark the validity of tickets and the controller unit system.

There are known controllers with gear mechanisms driven through lever and pawl systems. The gear shift over one tooth actuates the microswitch sending a current pulse rotating the printing gears through one igit in the devices being controlled. The setting of digits indicated by optical indicators is burdensome and the unreliable elecromechanical system gives little room for control.

The goal of invention is avoid the shortcomings of the known mechanical controllers.

The controller unit system makes possible the overprint on the tickets and the control of the bus operation.

The controller for marking the validity of tickets, in accordance with the invention, has a housing, in which an integrated microcontroller printed-circuit boardis located, reading field display, and a rotary switch positioned above the microcontroller. A single conductor remotecontrol bus controlling at least one ticket printer is connected through the housing wall.

The controller unit system, in accordance with the invention is characterized by the fact that it contains a microprocessor connected to a crystal oscillator microswitch block and multiplexing generator generating signals necessary for the correct operation of the display, control push-buttons, and the rotary switch. The controller contains a transcoder changing the code and the transmission line transmitter/ and receiver.

The subject of the invention is shown in the drawing in which figure 1 presents the controller unit system schematic, fig.2 - an axonometric view of the controller, and fig.3 - a longitudinal section through the controller.

The controller, according to the invention, for marking the validity of tickets, includes a housing consisting of a base 2 of this housing and an upper housing 1 having a slanted plane, in which there is z rotary digital switch 4 situated above the minicontroller printed-circuit board, and a display 3, monitor lights 11 screened with a shield 10, a switch 8 "ZAS" and a switch 9 "KAS".

Inside the housing there is a printed-circuit board with a microprocessor A connected with a crystal oscillator B, microswitch block C, and multiplexing generator D generating signals necessary for the correct operation of the display 3, control push-buttons 5, 6, 7 and rotary switch 4. The controller is fitted with a transcoder E changing the code, as well as the transmitter F and a receiver G of the transmission line I powered from the feeder Z. The controller in accordance with the unit system enables remote control of the ticket printers, i.e. printing of digits, indication of the time, and printing of the time, if desired, as well as control of the bus operation.

List of Markings

A	-	microprocessor
B	-	crystal oscillator
C	-	microswitch block
D	-	multiplexing generator
3	-	display
4	-	rotary switch
5, 6, 7	-	control push-buttons
E	-	transcoder
F	-	transmitter
G	-	receiver
T	-	transmission line
Z	-	feeder
1	-	upper housing
2	-	housing base
8	-	switch "ZAS"
9	-	switch "KAS"
10	-	shield
11	-	monitor lights

Claims

1. A controller, especially one to mark the validity of tickets, characterized by the fact, that it has a housing base /2/ adapted to the upper housing /1/ with a slanted plane in which a rotary digital switch /4/ i located, situated above the microcontroller printed-circuit board, the display /3/, monitor lights /11/, and switch /8/ "ZAS" and switch /9/ "KAS".

2. A controller unit system, especially one to mark the validity of tickets, characterized by the fact, that it contains a microprocessor /A/ connected with a crystal oscillator /B/, a microswitch block /C/, and a multiplexing generator /D/ generating signals necessary for the correct operation of the display /3/, and control push-buttons /5/, /6/, /7/, as well as a rotary digital switch /4/, a transcoder /E/ changing the code, a transmitter /F/ and a receiver /G/ of the transmission line /T/.

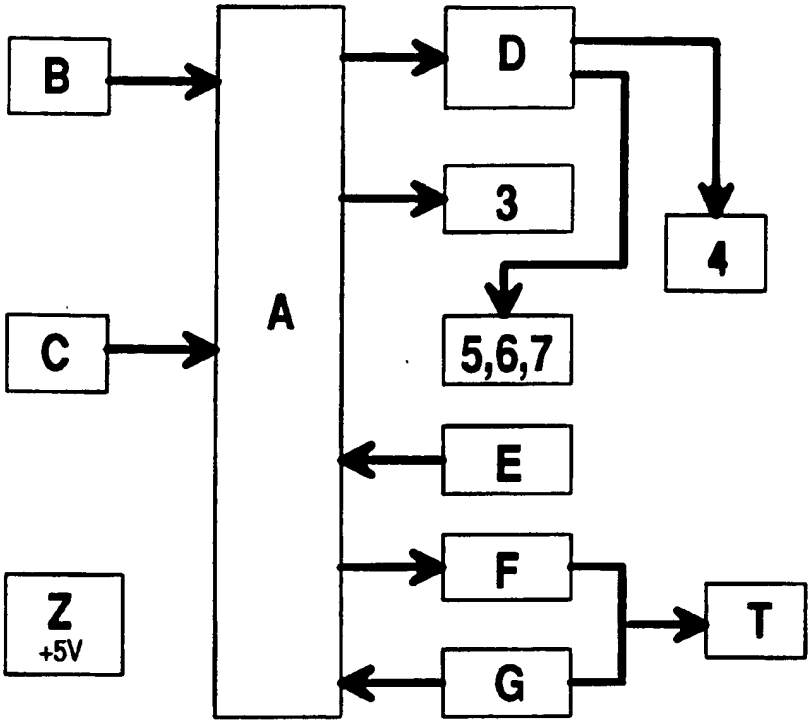

Fig 1

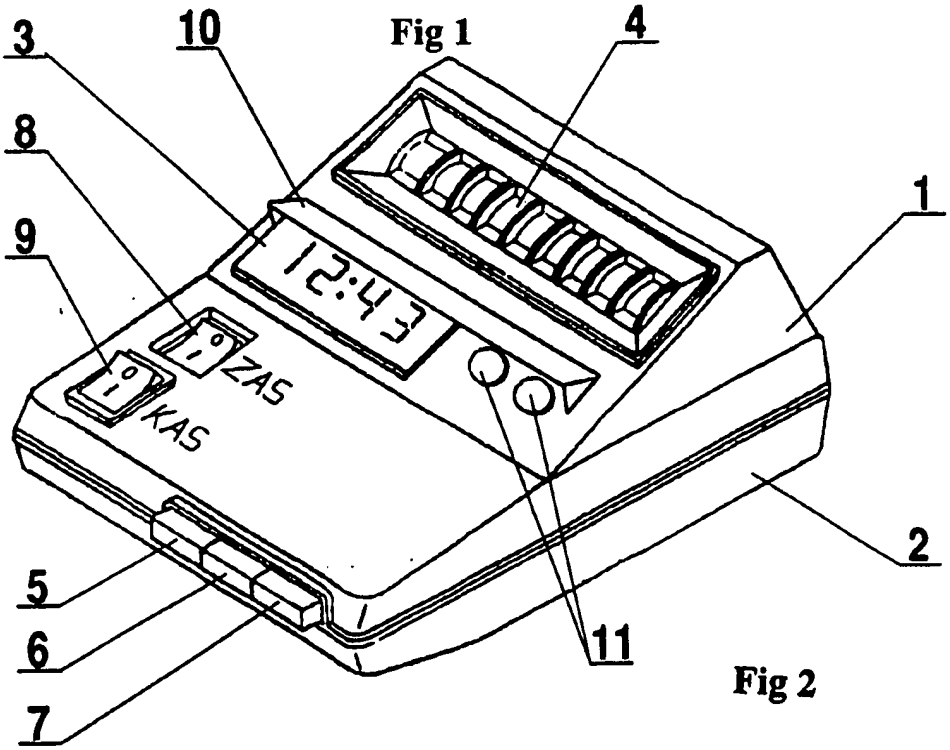

Fig 2

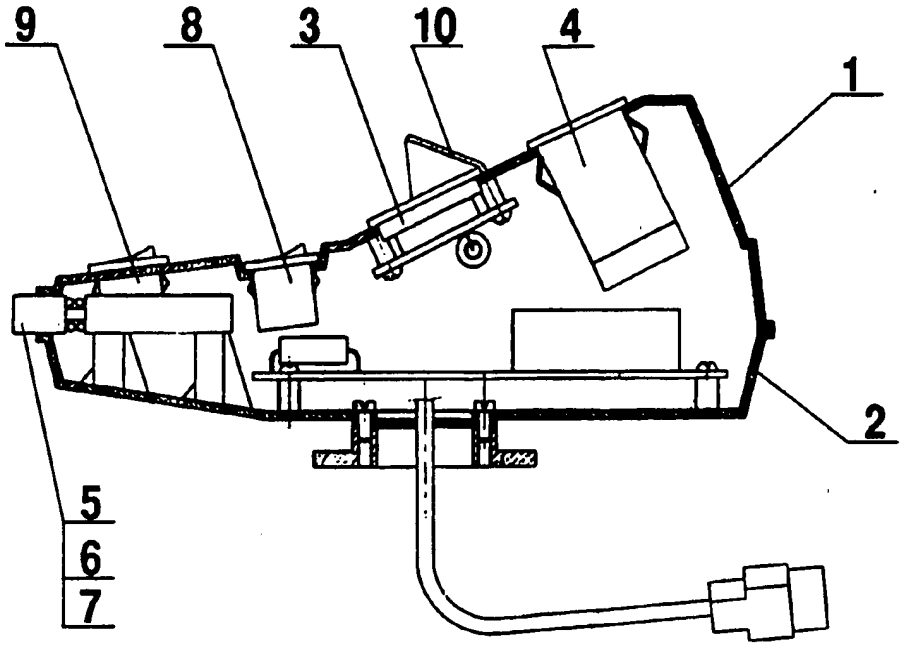

Fig 3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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